



SERVICE BULLETIN

AIR - INTRODUCTION OF TWO ZONE 2 AIR DEFLECTOR BRACKETS - CATEGORY CODE 3 -
MOD.ENG-75-0005

1. Planning InformationA. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines prior to Serial No.V0107 as delivered

B. Reason

(1) Condition

Possible overheating of the 7/10 stage electrical connector cabin air valve and the stage 10 on/off turbine cooling valve.

(2) Background

Results from flight and development testing have shown that the temperature of the cooling air flow around the 7/10 stage cabin air valve and stage 10 turbine cooling valve could exceed the limits and result in overheating of the electrical connectors.

(3) Objective

The changes in configuration recommended in this Service Bulletin are to maximise the by-pass duct cooling air flow around the electrical connectors.

(4) Substantiation

A combination of development testing and engineering assessment conclude that the items introduced by this modification will produce satisfactory results.

(5) Effect of Bulletin on workshop procedures:

Removal/Installation	Affected (See Supplemental Information)
Disassembly/Assembly	Affected (See Supplemental Information)
Cleaning	Affected (See Supplemental Information)
Inspection/Check	Affected (See Supplemental Information)
Repair	Not affected
Testing	Not affected

(6) Supplemental Information

V2500-ENG-75-0005



SERVICE BULLETIN

- (a) The assembly of the Post Service Bulletin configuration requires instruction for installing two new air deflector brackets and a new attaching plate.
- (b) The new parts introduced by this Service Bulletin will require new Cleaning and Inspection procedure.

C. Description

- (1) To cool the electrical connectors at the 7/10 stage cabin air valve and stage 10 on/off valve, is taken from the by-pass duct and deflected by two new air deflector brackets to direct the coolest air around the connectors.
- (2) The changes introduced by this Service Bulletin are as follows:
 - (a) A new air deflector bracket for the 7/10 stage cabin air valve which is bolted to the diffuser case at the fuel burner position on the port side twenty seven degrees from top dead centre. There is already another bracket installed at this position, this mean one of the three securing bolts has to pass through both brackets. In order for the air deflector bracket to fit properly the mounting points are at different heights.
 - (b) A new air deflector bracket for the stage 10 position is attached to a new attaching plate which is installed on the rear flange of the HP compressor rear outer case. The attaching plate is attached by flange bolts, two new bolts and clip nuts. It is necessary to move the T3 harness clipping bracket round one pitch to prevent it fouling with the air deflector bracket. On assembly of the air deflector a maximum clearance is to be kept between the electrical connector and the castellated nut of the adjacent cooling air pipe.

D. Approval

The part number changes and/or part modifications in sections described in sections 2. and 3. of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

E. Compliance

Category Code 3

Accomplish before entry into service (EIS).

F. Manpower

Estimated Manhours to incorporate the complete Service Bulletin

V2500-ENG-75-0005



SERVICE BULLETIN

Venue

Estimated Manhours

(1) In Service

Not applicable

G. Material - Price and Availability

(1) Modification Kit not required.

(2) See Material Information section for prices and availability of future spares.

H. Tooling - Price and Availability

Special tools are not required.

I. Weight and Balance

(1) Weight change Plus 0.6 lb (0,27 kg)

(2) Moment arm 30.4in. (772 mm.)

(3) Datum Engine front mount centreline
(Power Plant Station (PPS) 100)

J. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

K. References

(1) Internal Reference No.

89VR002

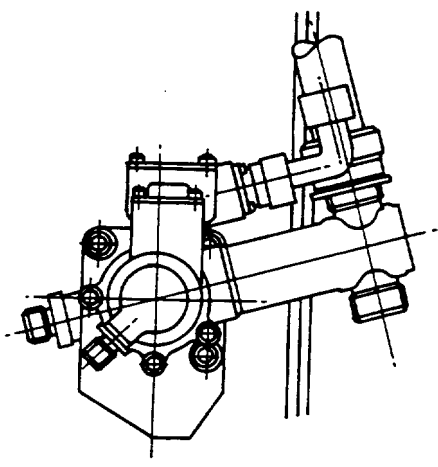
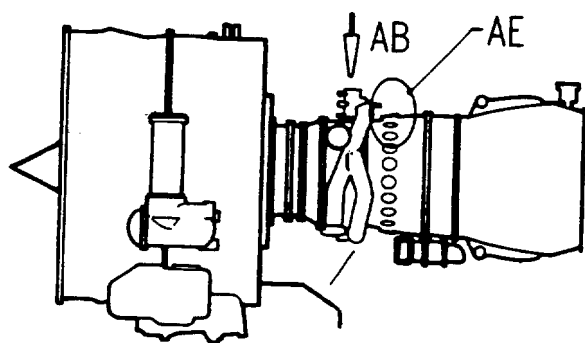
89VR002A

L. Other Publications Affected

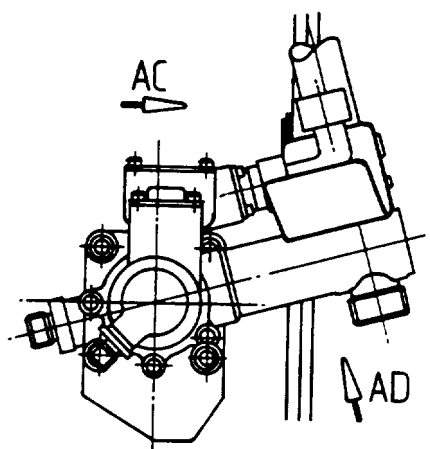
(1) V2500 Illustrated Parts Catalog, 71-52-44, 72-40-00, 73-13-41.

(2) V2500 Engine Manual, 72-40-00, Assembly, Disassembly, Inspection/ Check, Removal-04 and Installation-07, 72-00-42 Removal and Installation, 71-52-44 Inspection/Check and 73-13-41 Inspection/Check.

V2500-ENG-75-0005



VIEW  AB
BEFORE ALTERATION



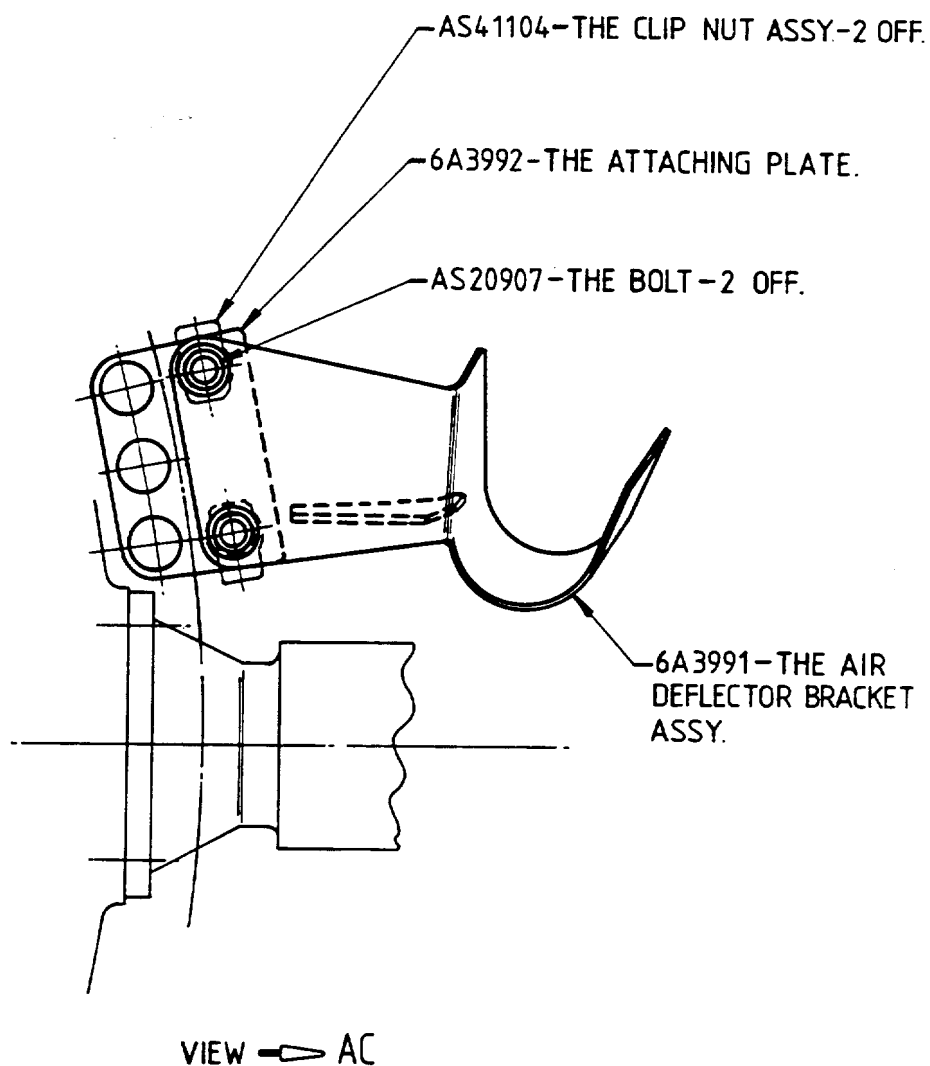
VIEW  AB
AFTER ALTERATION

View showing air deflector bracket - Before and after alteration
Fig.1

V2500-ENG-75-0005



SERVICE BULLETIN



ded0001151

View showing air deflector bracket - After alteration
Fig.2

V2500-ENG-75-0005

Jun.30/89

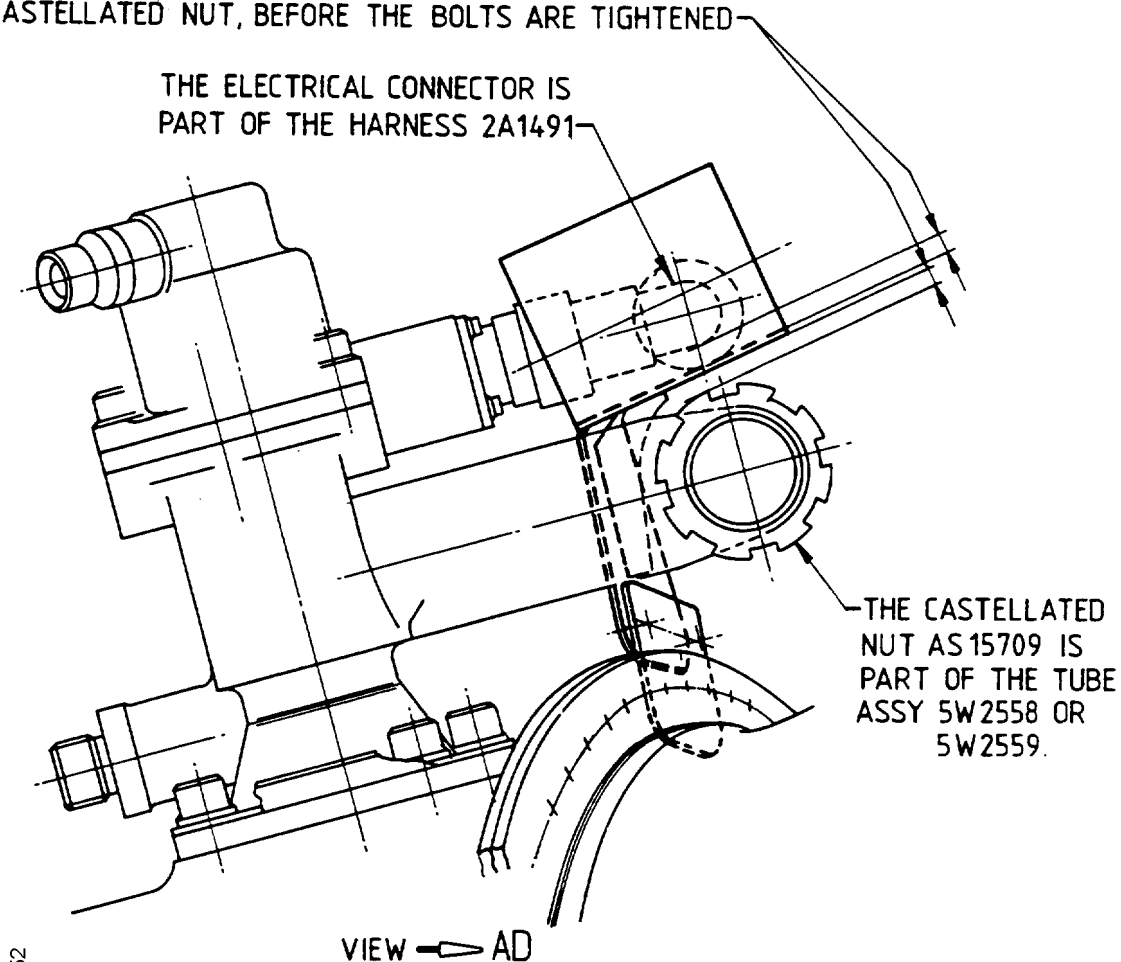
Page 5



ADJUST THE POSITION OF THE DEFLECTOR BRACKET
TO BE APPROXIMATELY IN THE MIDDLE OF THE SPACE
BETWEEN THE ELECTRICAL CONNECTOR AND THE
CASTELLATED NUT, BEFORE THE BOLTS ARE TIGHTENED

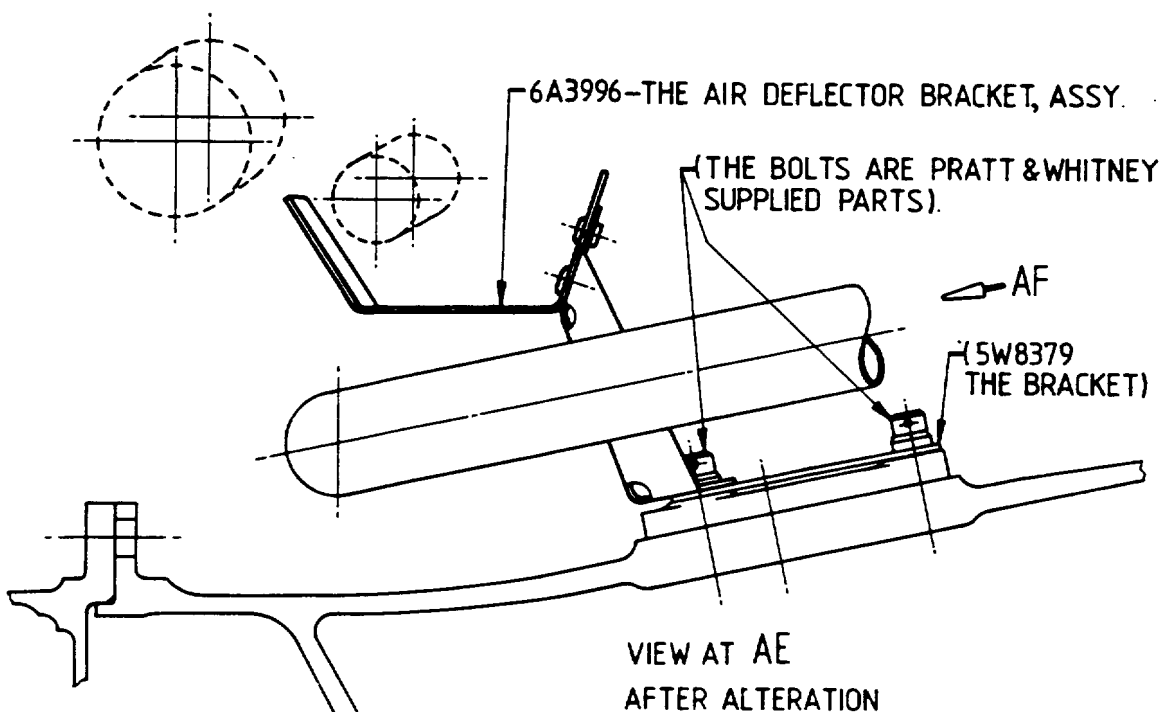
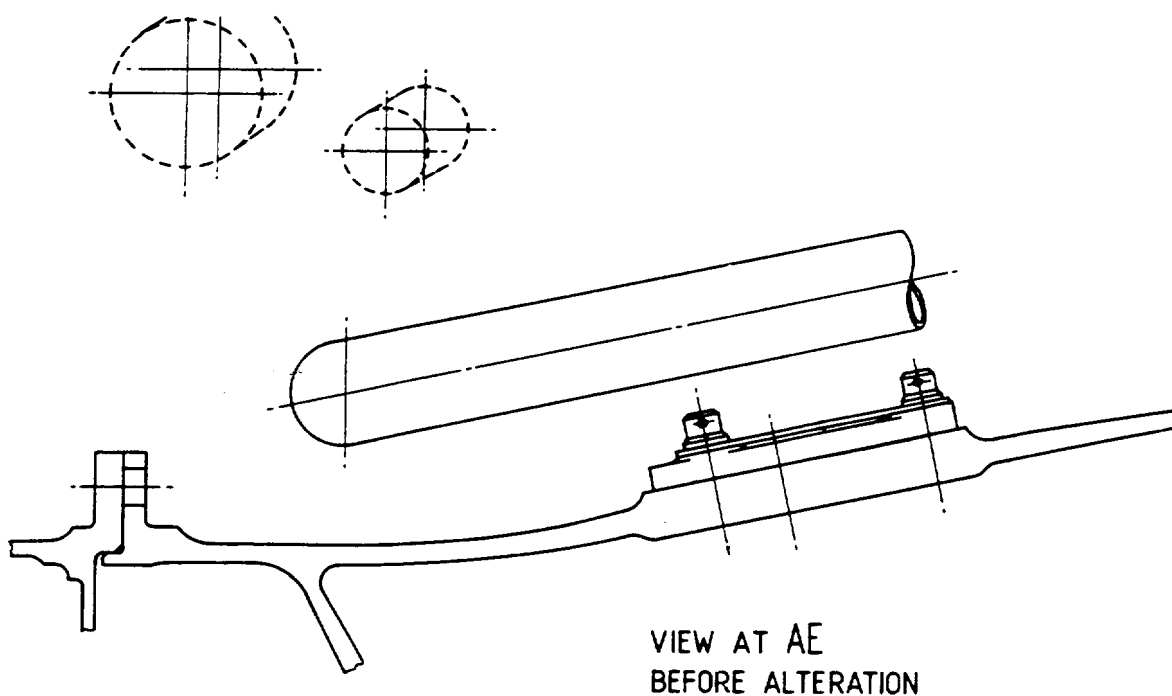
THE ELECTRICAL CONNECTOR IS
PART OF THE HARNESS 2A1491

THE CASTELLATED
NUT AS 15709 IS
PART OF THE TUBE
ASSY 5W2558 OR
5W2559.



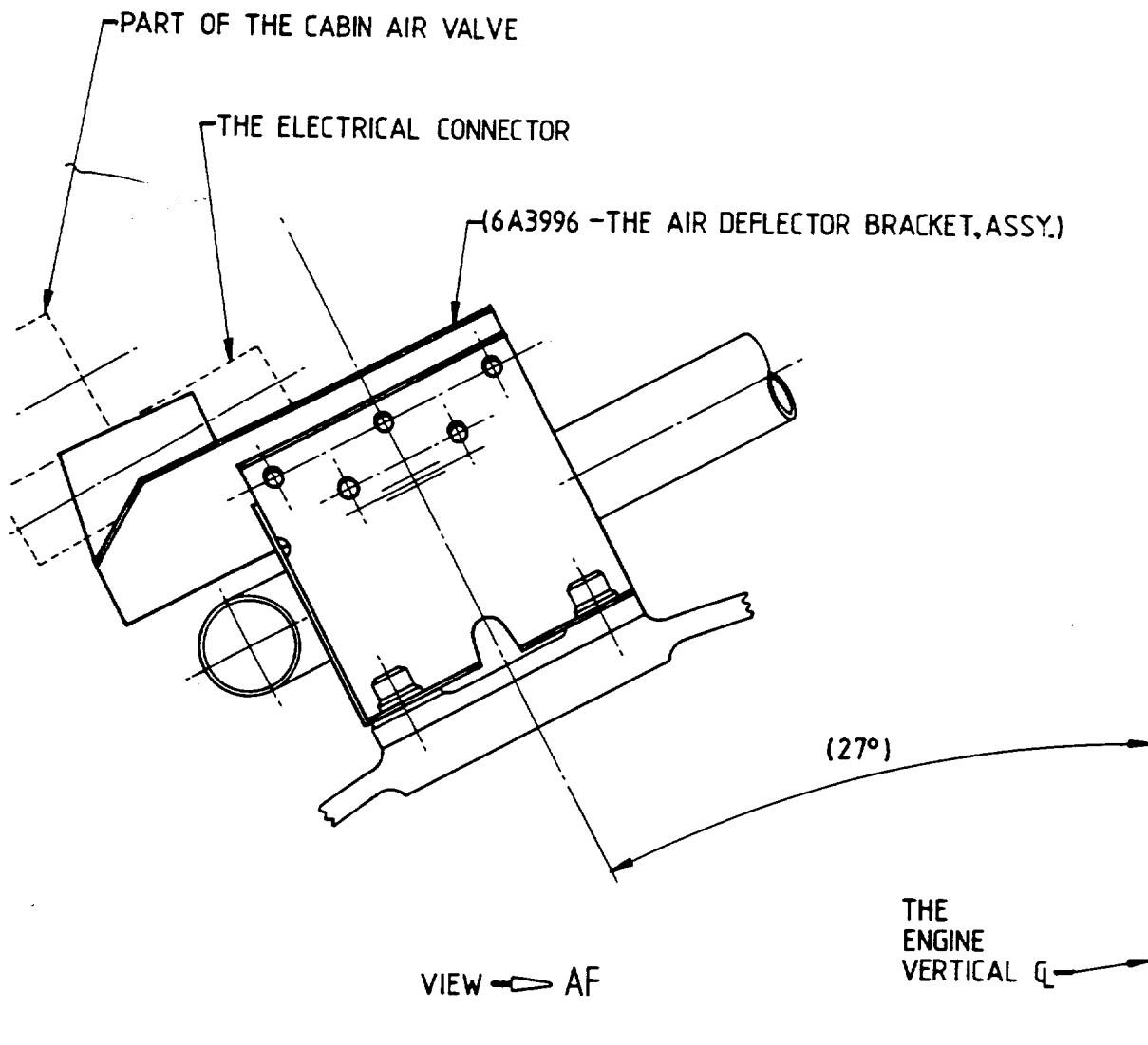
View showing air deflector bracket - After alteration
Fig.3

V2500-ENG-75-0005



ded0001153

View showing air deflector bracket - Before and after alteration
Fig.4



View showing air deflector bracket - After alteration
Fig.5

V2500-ENG-75-0005



2. Accomplishment Instructions

A. Rework Instructions

- (1) None, replacement only

B. Assembly Instructions

- (1) Remove the two forward bolts that attach the fuel nozzle to the diffuser case at the No.19 position.

NOTE: The fuel nozzles are identified from 1 to 20 in a clockwise direction from TDC when viewed from the rear.

Put the cooling air deflector bracket (6A3996) in position on the fuel nozzle with the top of the bracket adjacent to the electrical connector. Install the two bolts again and torque them to 65 to 85 lbfin (7,3 to 10 Nm).

- (2) Remove the three nuts from the HP compressor/diffuser case flange bolts at positions 2, 3 and 4.

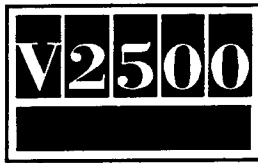
NOTE: The bolt hole positions are identified from 1 to 114 in a clockwise direction from TDC when viewed from the rear.

Put the air deflector bracket attaching plate (6A3992) in position and install the three nuts again. Torque the nuts to 180 to 220 lbfin (20 to 25 Nm).

- (3) Position the air deflector bracket (6A3991) between the electrical connector and the air control valve. Attach the air deflector bracket to the attaching plate with the two bolts (AS20907) and clip nuts (AS41104). Torque the two bolts to 36 to 45 lbfin (7 to 5 Nm).

C. Recording Instructions

- (1) A record of accomplishment is necessary.



SERVICE BULLETIN

3. Material Information

NEW PART NO. (ATA NO.)	QTY	EST'D UNIT PRICE (\$)	KEYWORD	OLD PART NO. (IPC NO.)	INSTRUCTIONS DISPOSITION
------------------------------	-----	-----------------------------	---------	------------------------------	-----------------------------

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this bulletin:

None

B. Parts affected by this bulletin:

6A3991 (71-52-44)	1	Bracket A/O, deflector air	- (05950)	(A)(1)(S2)
AS20907 (71-52-44)	2	Bolt, bihex hd (0.190 dia x 0.438)	- (05952)	(A)(1)(S2)
AS41104 (71-52-44)	2	Nut A/O, selflocking	- (05954)	(A)(1)(S2)
6A3992 (72-40-00)	1	Plate attaching, air deflector bracket	- (01075)	(A)(1)(S2)
6A3996 (73-13-41)	1	Bracket A/O, air deflector	- (01480)	(A)(1)(S3)

C. Reference drawings:

6A4100 (71-52-44)	Ref	Build clearance instructions air deflector	- (99200)
----------------------	-----	--	--------------

D. Instruction/Disposition Code Statements:

- (1) Additional.
- (S2) Parts must be fitted in sets.
- (A) New part currently available.

NOTE: Sets of items (S2) can be fitted independent of item (S3) but to achieve the full benefit of this Service Bulletin they should be fitted at the same time.

NOTE: The estimated Unit Prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult IAE's Spare Parts Sales Department for information concerning firm prices.

V2500-ENG-75-0005